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中国耳蕨属后生耳蕨组四新种*

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FOUR NEW SPECIES OF THE FERN GENUS *POLYSTICHUM* SECT. METAPOLYSTICHUM FROM CHINA

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关键词 耳蕨属；后生耳蕨组；疏果耳蕨；草山耳蕨；假半育耳蕨；川西耳蕨；中国

1 疏果耳蕨 新种 图1：A—D

Polystichum oligocarpum Ching ex H. S. Kung et L. B. Zhang, sp. nov.

Species affinis *P. yunnanensi* Christ, differt lamina oblongo-lanceolata, paleis rhacheos minus tectis, pinnis evidenter incurvis, apice caudatis, pinnulis oligosoris, indusiis integris vel subintegris.

Tota planta 26—68 cm alta. Rhizoma erectum, frondibus caespitosis. Stipes 8—21 cm longus, basi ca. 1.5 mm diam., paleis brunneis, lanatis obtectus. Lamina oblongo-lanceolata, 21—47 cm longa, 5—12 cm medio lata, apice caudata, fertilis, basi vulgo fertilis, bipinnata. Rhachis ca. 1.2 mm diam., paleis brunneis, lanatis minus tecta. Pinnae 20—25-jugatae, incurvae, alternatae, breviter stipitatae, 0.8—2.3 cm inter se remotae, medianae 5—10 cm longae, 0.7—1.2 cm supra basin latae, lanceolatae, caudatae, basi inaequilaterales, pinnatae. Pinnulae subsessiles, 9—20-jugatae, patentes, rhombeae, herbaceae, 0.7—1.6 cm longae, 0.34—0.65 cm latae, antice circulatim auriculatae, apice acutae, margine obtuse dentatae, non aristato-spinosae, basi cuneatae, supra subglabrae, infra breviter squamulosae, basales antice maximae. Vennae 5—8-jugatae pro pinnula, dichotomae, incon-

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spicuae. Sori brunnei, parvi, pauci, mediales, indusiis, brunneis, rotundatis, membranaceis, margine integris vel subintegris.

Yunnan (云南): Jingdong (景东), Wuliang Mt. (无量山), W. X. Xu (徐文宣) 35 (typus, PE; isotypus, PYU), W. M. Chu & Z. Z. Jin (朱维明、金振洲) 9223, 9307 (PE, PYU); Zhenyuan (镇沅), W. M. Chu & Z. Z. Jin (朱维明、金振洲) 9050 (PE, PYU).

我国特有种，产云南无量山。生于海拔 1700—2200 m 的杂木林、阔叶林下。

本种近 *P. yunnanense* Christ，但叶片矩状披针形，叶轴上鳞片较少，羽片明显向上弯曲，顶端尾尖，小羽片上囊群较少，囊群盖边缘全缘或近全缘。

2　草山耳蕨　新种　图 1: E—I

Polystichum sozanense Ching ex H. S. Kung et L. B. Zhang, sp. nov.

Species insignis *P. ovato-paleaceuo* (Kodama) Kurata proxima, differt lamina oblongo-lanceolata; paleis rhacheos apice caudatis; pinnulis anguste triangulari-ovatis minoribus ca. 1.0×0.35 cm, supra spisse longeque squamulosis.

Tota planta usque 97 cm alta. Rhizoma erectum, frondibus caespitosis. Stipes 24—34 cm longus, basi 3 mm diam., paleis fuscis, nitidis, ovatis vel ovato-lanceolatis, usque 8 mm longis, 5 mm latis, apice acuminatis vel caudatis, margine fimbriatis vel dense denticulatis, necnon paleis linearibus dense obtectus. Lamina oblongo-lanceolata, 63 cm longa, 17 cm medio lata, apice acuta fertilis, infra sterilis, bipinnata. Rhachis 2 mm diam., paleis ovato-lanceolatis, densis, fuscis, apice caudatis, margine fimbriatis vel denticulatis, patentibus. Pinnae ca 32-jugatae, patentes, alternae, breviter stipitatae, 2.3 cm inter se remotae in medio, medianae 12 cm longae, 1.8 cm medio latae, lanceolatae, apice caudatae, basi inaequilaterales, pinnatae. Pinnulae breviter stipitatae, ca 23-jugatae, patentes, tenuiter herbaceae, anguste triangulari-ovatae, 0.6—1.0 cm longae, 0.3—0.4 cm latae, antice deltoideo-auriculatae, basi cuneatae, apice acutae, margine integrae breviter aristato-spinosae, supra et infra longe squamulosae, basales antice maximae incisae. Venae 5—8-jugatae, dichotomae, inconspicuae. Sori brunnei, in utroque costae latere uniseriati, costulae approximati, indusiis rotundatis, membranaceis, margine integris.

Taiwan (台湾): Sozan (草山), the Zhuzi lake (竹仔湖), Tanaka 445 (Typus, PE); Taihokusyü, syökannonzan, Nakamura-Taizo 3994 (PE).

我国特有种，产台湾。

本种与 *P. ovato-paleaceum* (Kodama) Kurata 接近，但叶片呈矩状披针形，叶轴鳞片顶端尾尖；小羽片狭三角状卵形，较小，约 1.0×0.35 cm，腹面密被长小鳞片。

3　假半育耳蕨　新种　图 2: A—B

Polystichum oreodoxa Ching ex H. S. Kung et L. B. Zhang, sp. nov.

Species proxime affinis *P. semifertili* (Clarke) Ching, differt lamina apice acuminata; indusiis margine stellatim laceratis.

Tota planta 65—123 cm alta. Rhizoma erectum, frondibus caespitosis. Stipes 24—56

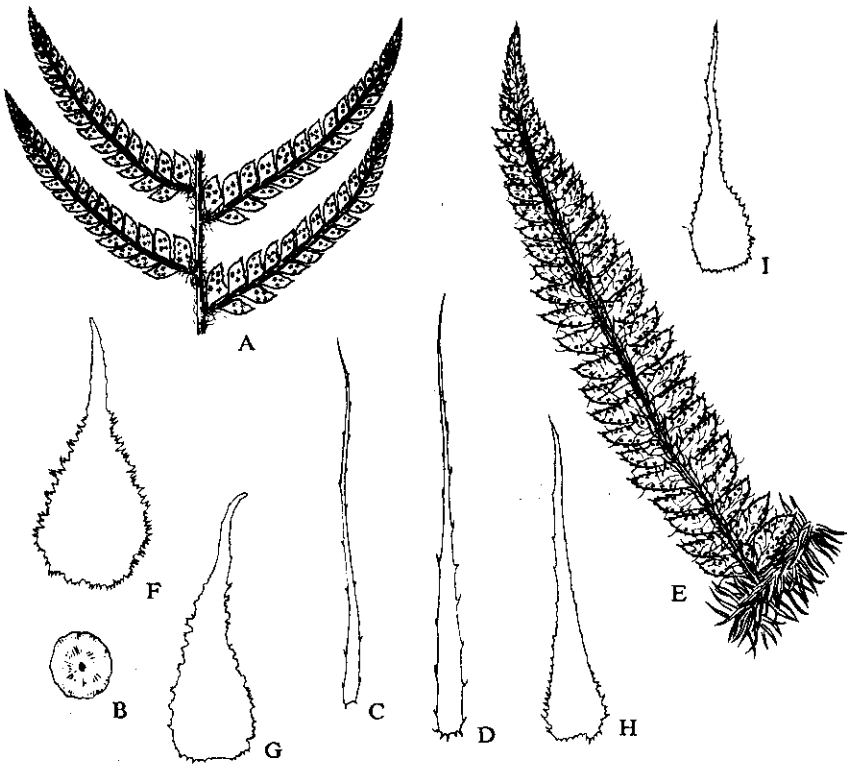

图1 A—D. 疏果耳蕨 A. 叶片中部；B. 囊群盖；C—D. 叶柄鳞片。E—I. 草山耳蕨 E. 羽片；F—I. 叶轴鳞片。(陈笺绘)

Fig. 1 A—D. *Polystichum oligocarpum* Ching ex H. S. Kung et L. B. Zhang A. middle of lamina; B. indusium; C—D. stipe scales. E—I. *P. sozanense* Ching ex H. S. Kung et L. B. Zhang E. pinna; F—I. rachis scales.

cm longus, basi 3—7 mm diam., paleis atro-brunneis, nitidis, latelanceolatis, usque 30 mm longis 10 mm latis, apice acuminatis, margine integris, necnon paleis linearibus dense obtectus. Lamina oblongo-ovata, 43—67 cm longa, 11—42 cm prope basin lata, apice acuminata plerumque sterilis, basi fertilis, bipinnata. Rhachis ca. 2.5 mm diam., paleis lanceolatis et linearibus, sparsis, brunneis vel atro-brunneis, apice acuminatis, margine subintegris vel sparse denticulatis, retrosis vel vagis. Pinnae 13—25-jugatae, patentes, alternae, breviter stipitatae, 2.0—3.5 cm inter se remotae in medio, 7—25 cm prope basin longae, 1.8—3.8 cm supra basin latae, lanceolatae, apice caudatae vel acuminatae, basi inaequilaterales, pinnatae. Pinnulae breviter stipitatae, 10—20-jugatae, patentes, oblongae vel falcato-oblongae, herbaceae, 1.0—2.3 cm longae, 0.5—1.0 cm latae, antice circulatim auriculatae, basi cuneatae, apice acutae, margine integrae interdum lobatae aristato-spinosae, supra glabrae, infra breviter squamulosae, basales antice maximea. Venae 5—10-jugatae pro pinnula, dichotomae, inconspicuae. Sori brunnei, magni, in utroque costae latere uniseriati, costulae approximati, indusiis rotundatis, membranaceis, margine stellatim laceratis.

Yunnan（云南）：Shuangbai（双柏），Ailao Mt.（哀牢山），in sylvis sempervirentibus，alt. 2400 m，W. M. Chu（朱维明）4521（Typus，PYU；isotypus，PE），4531（PYU）；Jingdong（景东），Ailao Mt.（哀牢山），J. J. He（和积鉴）13331，13378，13501，13528，13778，Wuliang Mt.（无量山），W. M. Chu（朱维明）9185，9426；Yongde（永德），W. M. Chu et al（朱维明等）14884，14922，14926，14932，14936，14959，15144，15165（PYU）；Lushui（泸水），云大滇西植物调查组（Bot. Exp. in W. Yunnan，Yunnan Univ.）

图 2　A—B. 假半育耳蕨　A. 叶片顶端；B. 囊群盖。C—G. 川西耳蕨　C. 羽片；D. 囊群盖；E—F. 羽轴鳞片；G. 小鳞片。（陈笺绘）

Fig. 2　A—B. *Polystichum oreodoxa* Ching ex H. S. Kung et L. B. Zhang　A. apex of lamina；B. indusium. C—G. *P. huae* H. S. Kung et L. B. Zhang　C. pinna；D. indusium；E—F. scales on pinna rachis；G. microscales.

11316，11318，11319，11374，11398，11406（PYU）；Tengchong（腾冲）W. M. Chu（朱维明）5587，PYU-10531，10532（PYU）.

产云南。生于海拔 2200—2400 m 的林下。

本种与 *P. semifertile*（Clarke）Ching 的区别是，叶片顶端渐尖，囊群盖边缘星芒状撕裂。

4　川西耳蕨　新种　图 2：C—G

Polystichum huae* H. S. Kung et L. B. Zhang，sp. nov. ——*P. soongae* H. S.

* 此名为纪念胡秀英教授所定。The name is in honor of prof. S. Y. Hu.

Kung et L. B. Zhang in Advan. Pl. Tax. NW China **1**: 118—125. 1992. nom. nud.

Affinis *P. longiaristato* Ching, Boufford et Shing, sed paleis rhacheos brunneis; pinnulis herbaceis antice vadose serratis saepe incisis, basalibus antice fere ad costam partitis; squamellis longis; indusiis integris differt.

Tota planta 69—90 cm alta. Rhizoma erectum, frondibus caespitosis. Stipes 16—40 cm longus, basi 3.5 mm diam.; paleis atro-brunneis, nitidis, lateovatis vel ovato-lanceolatis, usque 15 mm longis, 7 mm latis, apice acutis vel acuminatis, margine subintegris, necnon paleis linearibus dense obtectus. Lamina elliptico-lanceolata, 44—62 cm longa, 17—21 cm medio lata, apice acuminata omnino fertilis, bipinnata. Rhachis ca. 2 mm diam.; paleis ovato-lanceolatis, sparsis, brunneis, apice longe acuminatis, margine ciliatis, vagis. Pinnae 20—26-jugatae, patentes, alternae, breviter stipitatae, 2.4—2.9 cm inter se remotae in medio, medianae ca. 12 cm longae, 2.5 cm supra basin latae, lanceolatae, apice acuminatae, basi inaequilaterales, pinnatae. Pinnulae breviter stipitatae, 15—19-jugatae, patentes, herbaceae, oblongae, 1.2—1.8 cm longae, 0.5—0.7 cm latae, antice semiorbiculari-auriculatae, dentatae, basi cuneatae, apice acutae, margine longe aristato-dentatae, supra subglabrae, infra longe squamulosae, basales antice maximae fere ad costam partitae. Vennae 5—8-jugatae pro pinnula, dichotomae, inconspicuae. Sori brunnei, in utroque costae latere uniseriati, costulae approximati; indusiis peltatis, rotundatis, membranaceis, margine integris.

Sichuan (四川): Baoxing (宝兴), in forest, alt. 2100 m, 1939-07—1939-08, S. Y. Hu (胡秀英) 1158 (Typus, KUN; isotypus, SZ).

我国特有种，仅产于四川宝兴。生于海拔 2100 m 的林下。

本种近 *P. longiaristatum* Ching, Boufford et Shing，但叶轴鳞片棕色（非淡棕色）；小羽片草质，上侧具浅锯齿，通常具缺刻，基部上侧小羽片深裂几达中脉；小鳞片长型；囊群盖全缘。而与 *P. makinoi* (Tagawa) Tagawa 的区别是，体型大，小羽片齿裂，小鳞片长型，叶轴具卵状披针形鳞片，囊群盖全缘。